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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/508,604	03/14/00	TAKAHASHI	PAINSE

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IM71/0706

EXAMINER
NGUYEN, K

ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 07/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/508,604

Applicant(s)

TAKAHASHI ET AL.

Examiner

Kimberly T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: It is not clear as to what Applicant is stating on page 24, line 24.

Appropriate correction is required.

Claim Objections

2. Claim 1 is objected to because of the following informalities: The terms of the claims describing the layers are inconsistent with the terms which describe the same layers in Applicant's specification. For example, claim 1 shows a "stress relaxing layer as a primer layer." The specification shows that this layer is called an "undercoat layer" on page 16, line 7. For purposes of examining, the "undercoat layer" will be considered as the "stress relaxing layer as a primer layer." Appropriate correction is suggested.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention. Applicant has incorporated a foreign test standard in the specification.

The incorporation of essential material by reference to a foreign application or a foreign patent or to a publication inserted in the specification is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be

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accompanied by an affidavit or declaration executed by the Applicant, or Applicants' attorney or agent, stating that the amendatory material consists of the same application. *In re Hawkins*, 486 F.2d 569, 179 USPQ 157; *In re Hawkins*, 486 F.2d 569, 179 USPQ 163; *In re Hawkins*, 486 F.2d 569, 179 USPQ 167.

In order to avoid a 35 USC 112, first paragraph rejection when the Applicant attempts to incorporate a foreign test standard in the specification (see page 7, lines 30-34; page 95, lines 10-11), it is recommended that Applicant submit an English translation of the standard.

Claim 22 is rejected under 35 USC 112, first paragraph, for the reasons set forth in the objection to the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26, 27, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The terms "and/or" render the claimed invention unclear since the first sealer layer "and/or" the second sealer layer results in three different combinations.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 and 16-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manning et al., U.S. Pat. No. 4,916,007 in view of Takahashi et al., U.S. Pat. No. 6,040,044.

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Manning shows a decorative sheet with a paper substrate, an optional first layer composed of a resinous polymer composition, synthetic resins, or polyurethanes (first sealer layer) (column 4, lines 41-63), a pattern or design printed layer (Abstract), a second layer composed of a resinous polymer composition, copolymers of vinyl chloride, or vinyl resins other than a plastisol or organosol (undercoat/stress-relaxing layer or second sealer layer) (column 6, lines 26-31), and an optional overcoat of acrylates and methacrylates (protective layer or top coat) (column 10, lines 37-40 and column 4, lines 54-60). Manning shows that the second layer of resinous polymer composition is 76 μ m to 1,016 μ m (column 6, lines 13-17). Manning shows that the layers composed of a resinous polymer composition include decorative particles such as chips or flakes made from gelled plastisol (column 7, lines 67-68).

Manning does not show that the second layer composed of a resinous polymer composition (second sealer layer) is composed of acrylic resin, butyral resin, or urethane resin; however, Applicant, shows that this layer may be formed of any conventional synthetic resin (page 64). Manning does not show that the stress-relaxing layer has a particular yield strength or breaking strength as in Applicant's claim 5-6. Manning does not show that the top coat has a specific coefficient of dynamic friction as in Applicant's claim 16. Manning does not show that the total thickness of the layers is less than 50 μ m as in claim 21. Manning does not show that the decorative material has a particular moisture permeability as in Applicant's claim 22 or that the topcoat contains a water-repellant or hydrophobic silica as in claims 24 and 25, respectively. However, fillers and additives have been taught by Takahashi to be combined to impart suitable features to the film. This includes silica and water repellants. Finally, Manning does not show that the sealer layers have a specific yield strength or breaking strength as in Applicant's claims

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27 and 28. Air permeability, particular yield and breaking strengths, and specific coefficients of dynamic friction in the different layers are functions of the polymer used. Since Manning uses the same polymers in the same manner as Applicant uses them, the same properties would be expected, absent any evidence to the contrary.

Manning does not show that the topcoat (protective layer) can withstand up to 170°C as in Applicant's claim 29. The topcoat of Manning is made from the same polymers which Applicant used. The effect of the temperature range would be expected to be the same, absent any evidence to the contrary. Manning does not show that the decorative material has a specific surface gloss as in Applicant's claim 31. Manning does not show that the print layer has a particular air permeability as in Applicant's claim 32.

Takahashi shows a decorative material containing spherical particles of alpha-alumina in the top layer (column 4, lines 34-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ spherical particles in the top layer because it is known in the art to use spherical particles in the topmost layer of decorative materials for aesthetic and functional purposes.

Specific gloss and thickness are properties which can easily be determined by one of ordinary skill in the art. With regard to the limitation of the specific gloss and thickness, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operating conditions (e.g. gloss and thickness) fails to render claims patentable in the absence of unexpected results. "[W]here the general conditions of a claim are

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disclosed by the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 105 USPQ 233.

8. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al., U.S. Pat. No. 5,665,457 in view of Takahashi et al., U.S. Pat. No. 6,040,044.

Sato shows a decorative paper having a base paper, a print design layer of acrylic resin (penetration-inhibiting coating), a topcoat of melamine, acrylic, or urethane resin to which is added a curing agent (column 3, lines 5-8), and concavities in the topcoat (cissing pattern) (see Claim 1). → Mixing addition curable resin

Sato does not show that the topcoat contains spherical particles as per instant Claim 11. Takahashi shows a decorative material containing spherical particles in the top layer (Claim 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ spherical particles in the top layer because it is known in the art to use spherical particles in the topmost layer of decorative materials for aesthetic and functional purposes.

Sato does not show that the penetration-inhibiting coating functions as a stress-relaxing layer. However, the same polymers are expected to show the same properties absent any evidence to the contrary. Sato does not show that the penetration-inhibiting coating has a particular yield strength or breaking strength as Applicant claims in claim 14 and 15. Sato does not show that the topcoat can withstand a maximum temperature of 170°C as in Applicant's claim 30. The particular yield strength and breaking strength as well as maximum temperature are all functions of the type of polymers used.

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Conclusion

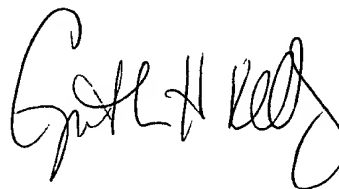
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kimberly Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday through Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-3559 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kimberly T. Nguyen
Examiner
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**CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700**

A handwritten signature in black ink, appearing to read 'Cynthia H. Kelly', is written over the printed name and title.